APPENDIX A

IN THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF FLORIDA, MIAMI DIVISION

No. 9979-M-Civil-EC

Findings of Fact and Conclusions of Law

JOHNS-MANVILLE CORPORATION, A Corporation, *Plaintiff*,

v.

ITALIT, INC., A Corporation, *Defendant*.

FINDINGS OF FACT

1. This is an action for patent infringement, brought by plaintiff for infringement of claims 1 and 2 of United States Patent No. 2,738,992 which was duly and legally issued on March 20, 1956 to plaintiff as the assignee of Robert W. Heisler for an invention entitled "Pipe Coupling", against defendant based on its importation of pipe and couplings manufactured in Italy and sold by defendant in the United States in violation of the exclusive rights secured to plaintiff by the patent.

2. Plaintiff Johns-Manville Corporation is a corporation of the State of New York. Defendant, Italit, Inc., is a corporation of the State of New York having a regular and established place of business and a resident managing agent at Port Everglades Station, Fort Lauderdale, Florida, where it has committed acts of infringement by selling infringing asbestos-cement pipe and pipe couplings, imported from the Italian manufacturer, Eternit S.p.A., Genoa.

3. Plaintiff is a large producer of asbestos fibres and a manufacturer of products which include such fibres, among which are asbestos-cement pipes and couplings for such pipes. The asbestos-cement pipe art was originally developed many years ago in Italy by predecessors of defend-

ant's Italian supplier. In 1929 plaintiff became interested in the manufacture and sale in the United States of asbestos-cement pipe as an outlet for the asbestos fibres which it mined and manufactured (Tr. 33). Plaintiff pioneered in the commercial development of asbestos-cement pipe in the United States and is still a major producer in this country (Tr. 33).

4. Asbestos-cement pipe is made by forming a wet web of asbestos fibres, cement and silica on a machine not unlike a Fourdrinier machine used for manufacturing paper through depositing the web in concentric layers on a steel mandrel and subjecting the same to high pressure until a tube of desired thickness is built up, whereupon the tube is stripped from the mandrel and cured and dried in an autoclave at high temperature (Tr. 32). Pipe sections made in this manner have their ends plain and straight without enlarged or belled ends adapted to receive straight or "spigot" ends of other pipe sections, as is the case with cast or moulded pipes. Such asbestos-cement pipes cannot be connected together to form a pipe line by bell and spigot joints, nor by threading in combination with collars, but must be connected by joints making a fluid-tight connection with plain, straight, cylindrical ends of adjacent pipe sections.

5. Plaintiff acquired know-how, machines and patent licenses in 1929 from the Italian Eternit Company (Eternit S.p.A. of Genoa, Italy) which had pioneered in Europe in the development of asbestos-cement pipe and couplings. At that time the most popular pipe coupling in use in Italy and other European countries was known as the GIBAULT joint consisting of a cast iron flanged ring on each pipe end, a cast iron connecting sleeve, rubber gaskets between the rings and the ends of the sleeve, and large bolts connecting the rings to draw them together to compress the gaskets against the pipe and the cast iron sleeve (Tr. 37, 94, Pl. Ex. 114). Plaintiff did not employ the GIBAULT joint initially, but manufactured and sold a joint developed

by an official of Italian Eternit, known as the SIMPLEX coupling, shown in and covered by United States Patent No. 1,947,998, which has long since expired.

6. This SIMPLEX coupling included an asbestos-cement coupling sleeve encircling the adjacent ends of two pipe sections, with rubber rings disposed under great compression between the outer surfaces of the pipes and inner surface of the sleeve on opposite sides of the adjacent ends of each pair of pipes. Assembly of the SIMPLEX coupling was difficult. The rubber rings had to be placed on the pipes and the coupling sleeve had to be drawn by the application of high pulling forces from a position encircling one pipe, over the rubber rings to a position enclosing the abutting pipe ends. This was accomplished by a rolling action of the rings over the exterior of the pipe ends and along the inside of the sleeve. Jacks or pullers were required to exert the forces necessary to move the sleeve over the rings. The SIMPLEX joint as shown in the Mazza patent No. 1,947,998 was manufactured and sold by plaintiff in the United States from late 1929 until supplanted by the pipe coupling of the patent in suit, which was then sold under the trade mark RING-TITE.

7. Plaintiff was the only manufacturer of asbestos-cement pipe in the United States until 1936 when a wholly owned subsidiary of Turner-Newell Ltd. of England, named Keasbey & Mattison, commenced manufacturing asbestos-cement pipe in Ambler, Pennsylvania, with which it supplied the GIBAULT coupling. It continued to offer the GIBAULT coupling until 1947, when it acquired a license under the Mazza patent and commenced manufacturing the SIMPLEX coupling (Tr. 39). Keasbey & Mattison continued to offer the SIMPLEX joint until after the plaintiff introduced the RING-TITE coupling made in accordance with its patent in suit, when in 1955 it shifted over to the FLUID-TITE coupling referred to below.

8. By about 1949 customers using the SIMPLEX coupling (Tr. 39, 95) had made many complaints based pri-

marily on difficulties experienced in assemly of the coupling and on failures encountered in service after installation, due to rubber ring blow-out. In an effort to overcome the difficulties with the SIMPLEX coupling, plaintiff's employees then began a research program (Tr. 136), seeking improvement in coupling structures.

9. A preliminary design of plaintiff's employee, Robert W. Heisler in 1951 showed promise, and he was assigned to the project of making improvements thereon. His 1951 coupling could be assembled with less effort than the SIMPLEX coupling and had improved blow-out prevention characteristics. The SIMPLEX coupling was a "roll-on joint" with the rubber rings under very high compression, assembled under heavy pulling forces. The 1951 Heisler coupling was a lubricated joint with pressure assisted rings disposed in grooves in the coupling sleeve, which rings were adapted to slide along the lubricated surfaces of the pipe ends during assembly (Tr. 132, 133). The 1951 Heisler coupling was not satisfactory and was not adopted commercially because no positive means was provided for centering the sleeve over the pipe ends or for assuring that the ends of the pipes were separated from each other in assembled relation (Tr. 135, 136). It has always been necessary to space the adjacent ends of asbestos-cement pipe sections in a pipe line because the asbestos-cement material has the inherent characteristics of being expansible under increase in moisture content, such as is encountered when put into water main service. Space to permit expansion of individual sections must be provided to prevent the establishment of rigid, abutting engagement between pipe ends and to maintain flexibility of the line as a whole. With the SIMPLEX coupling, this spacing was provided after the couplings had been assembled, by manual manipulation of the pipe sections. (Tr. 92; Pl. Ex. 131, p.B.M.T. 508; and Tr. 252).

10. As a result of Heisler's continuing research efforts, on or about May 15, 1952, he completed the invention of

the patent in suit, as shown by entries in his laboratory notebook, Plaintiff's Exhibit 141. The new coupling was tested in the laboratory and demonstrated to representatives of American Water Works Service Company, leading to an initial installation by that company in February, 1953 at Long Branch, New Jersey, and an exhibition and demonstration to the industry at the American Water Works Association Convention in May, 1953 (Tr. 41-43; 141). Its commercial acceptance followed, and it supplanted the SIMPLEX coupling in plaintiff's production in less than three years (Tr. 44), during which plaintiff was offering both couplings.

11. The coupling made and sold by plaintiff in accordance with the patent in suit was a lubricated "push-in" coupling and was the first one of this type ever used in the asbestos-cement field. The patented coupling consists of an asbestos-cement sleeve having grooves in its inner surface in which rubber sealing rings are seated and arranged to be relatively lightly compressed as the lubricated pipe ends are pushed into the sleeve. The machined ends of the pipes are each provided with a circumferential *shoulder* at a predetermined distance from the end, to engage the rubber rings and to limit the movement of the pipe into the sleeve (Tr. 147, 148). The shoulder on the pipe *in combination* with the sealing ring in the groove in the sleeve is the heart of the invention, accomplishes new and useful results, makes possible an entirely new mode of operation, and the use of the shoulder in combination produces advantages which were not up to then foreseen.

12. The unforeseen advantages, unobvious functions and results of the RING-TITE coupling may be summarized as follows: First, the shoulder on the pipe disposed in abutting relation to the rubber sealing ring backs up the ring and cooperates with the groove in the sleeve to fix and set the ring so as to prevent any tendency of ring extrusion or ring blow-out under pressure surges (Tr. 150). Second, the shoulders center the coupling sleeve

with respect to the pipe ends and prevent the sleeve from being forced onto one pipe more than the other during assembly, by push-in action, of the first and subsequent pipe sections added to the line (Tr. 148, 149). Third, the shoulders on the pipe engage the rubber sealing rings in the groove and arrest the movement of the pipe into the coupling sleeve to provide end separation or spacing of the pipes (Tr. 148, 149). Fourth, the shoulder made possible a new and easier method of assembling the pipe in the ditch, by a procedure known as "belling ahead". In accordance with this procedure a coupling sleeve may be assembled on one end of each pipe section before the pipe is lowered into the ditch, or at the factory, to provide, in effect, a belled end, and the pipes are coupled in the ditch merely by jamming the spigot end of one section into the belled end of a previously laid section (Frazza, Tr. 98, 100; Trice Tr. 150-153).

13. Witnesses at the trial (Holmes and Walden) and deposition witnesses (Burdine, Parker and Weaver), all of whom were pipe line contractors having practical experience, testified to the advantages of the shoulders on the pipe in combination with the rubber sealing rings in the grooves in the coupling sleeve.

14. Defendant offered no evidence contradicting the evidence presented by plaintiff as to the advantageous results accomplished by the shoulder on the pipe ends in the combination of the patent in suit and does not disagree with plaintiff's position on this matter.

15. The Court saw and heard the witnesses who were employees of plaintiff and who had had long experience in the asbestos-cement pipe and coupling art and saw and heard the practical pipe line contractors, all of whom had had experience with plaintiff's patented coupling, including one witness called by defendant, and noted the agreement as to the importance of the shoulders on the pipe ends in combination with the known use of sealing rings in grooves.

Even defendant's contractor witness, Krane, testified that the shoulder tends to make the installation more foolproof.

16. The principal basis of defendant's attack on the validity of the patent in suit, made in argument in its brief, is a contention that it would have been obvious to a person having ordinary skill in the pipe coupling art to provide on the pipe of the Turner Patent No. 2,294,142, a shoulder as taught by the Houze patent No. 543,871. There is no testimony by defendant's expert or any other witness that the addition of shoulders to the pipe in the Turner patent would be obvious and no witness for defendant was interrogated upon the point. Plaintiff's witness, Trice, gave detailed reasons (Tr. 439-443) why in his opinion the addition of such shoulders to the ends of asbestos-cement pipe would not be and were not obvious.

17. Although defendant relied upon 24 prior patents for anticipation of the patent in suit or in an effort to show lack of invention, there was no evidence that any of the constructions shown in the patents represented a practical pipe coupling which had been put into actual commercial use, or had ever been used or sold.

18. Four prior patents were relied upon by defendant's expert as showing the use of shoulders on pipes adapted to engage and compress rubber sealing rings in coupling sleeves or bells, but none of these patents showed a sealing ring in a groove in a sleeve adapted to be lightly compressed by the pipe ends to provide a pressure assisted seal. Similarly, defendant relied upon three patents showing sealing rings disposed in grooves in coupling sleeves or bells, but these patents did not have shoulders on the pipe ends adapted to abut the rings to provide an improved seal, prevent ring blow-out, effect sleeve centering, and provide automatic end separation.

19. The patents relied upon by defendant, showing shoulders on pipe end, Houze 543,871, August 6, 1895:

Miller 2,177,438, October 24, 1939; Osborn 2,590,565, March 25, 1952; Beyer 2,693,378, November 2, 1954; and Italian Patent 458,520, July 20, 1950, are no more pertinent than patents cited by the Patent Office and considered by the Examiners showing shoulders on the pipe, namely, Nathan 2,209,235, July 23, 1940; Hirsh 2,470,818, May 24, 1949; British Patent 458,958, December 30, 1936; and Halkyard 2,272,115, February 3, 1942. Defendant relied on another group of patents as showing the use of sealing rings in grooves disposed in coupling sleeves or bells, namely, Turner 2,294,142, and A.P.C. Publication S.N. 293,149, Boissou, published May 25, 1943, and 2,180,795, Christensen, November 21, 1939. These patents are no more pertinent than patents cited by the Patent Office showing rubber rings disposed in grooves, such as Kenyon 865,498, September 10, 1907; Beyer et al. 2,184,376, December 26, 1939; Nathan 2,209,235, July 23, 1940 (Figs. 1-3); Parker 2,478,127, August 2, 1949; Jones 2,639,169, May 19, 1953; and Baines British Patent 415,425, August 24, 1934.

20. Although there is no single new element in the plaintiff's patent that constitutes a patentable invention in and of itself, the combination of old elements, or previously known elements, or elements of prior art, particularly as respects the shoulder on the pipe, has produced a new and useful and patentable improvement over all previously known couplings. The elements of claims 1 and 2 of the patent in suit constitute a true patentable combination, and not a mere aggregation of old elements. All of the elements cooperate with each other to perform new and useful results in an improved manner and were combined through the exercise of invention. The new combination of old elements brought together for the first time by the inventor, Heisler, would not have been and was not obvious to one having ordinary skill in the art at the time the invention was made.

21. Keasbey & Mattison was the owner of the United States patent to Turner, No. 2,294,142, dated August 25, 1942, which is now the principal item of prior art relied upon by defendant in its attacking the patent in suit. Although the patent was granted more than ten years prior to the advent of the Heisler RING-TITE coupling, it was never used commercially by Keasbey & Mattison to avoid the difficulties and drawbacks of the SIMPLEX coupling, either before or after the introduction of plaintiff's patented RING-TITE coupling. Although the Turner patent shows all of the elements of the Heisler invention except the shoulders on the pipe ends, the construction was impractical and has never gone into commercial use (Trice, Tr 442; Bradt, Tr. 381, 382). The absence of the shoulders on the pipe ends made the Turner construction impractical, just as was the 1951 Heisler coupling, which had no shoulders. The Court finds that it was not and would not have been obvious to Turner or Keasbey & Mattison to provide shoulders on the pipe ends to perform the functions accomplished by the shoulders in the combination of the Heisler patent.

22. Plaintiff's patented RING-TITE joint was the first departure in the commercial asbestos-cement pipe and coupling field from the old SIMPLEX coupling. Since the introduction of the patented RING-TITE coupling by plaintiff, all sales of SIMPLEX couplings have been discontinued in the United States and all competitive asbestos-cement pipe and couplings offered in this country have included lubricated push-in type joints with some provision for effecting end separation and sleeve centering.

23. In 1955, Keasbey & Mattison introduced a coupling known as FLUID-TITE in accordance with its Altemus patent 2,871,031 (Pl. Ex. 137; Frazza, Tr. 107-109). With this joint, it was necessary to use removable clips or spacer forks placed over each pipe end in engagement between a shoulder on the pipe and the end of the coupling

sleeve to limit the movement of the pipe into the sleeve. The clips were removed after several lengths of pipe had been laid.

24. The Belgian Eternit Company sold asbestos-cement pipe in this country commencing in about 1958 (Frazza, Tr. 110; Pl. Ex. 138) in which two additional rubber rings were employed beyond the ends of the coupling sleeve abutting an external shoulder on the pipes to act as stop rings and provide sleeve centering and end separation. Mr. Gerin of Eternit Belgium characterized the use of the supplementary rings of the Belgian joint and the clips or forks of the Keasbey & Mattison as being "less elegant" than the solution to the problem previously provided by plaintiff, namely, the stop shoulder on the pipe ends engaging the rubber sealing rings in the grooves in the sleeve.

25. Eternit A.G. of West Germany exported asbestos-cement pipe and couplings to this country in 1958 (Frazza, Tr. 113; Pl. Ex. 139) which included the REKA coupling, also employing external spacing clips.

26. The unexpected advantage and results of plaintiff's RING-TITE coupling were of such commercial importance that plaintiff's principal competitors were compelled to adopt and offer some expedient which would provide sleeve centering and end separation in their couplings, and all, except defendant, went to external clips, clamps, or additional rubber rings presumably out of respect for the RING-TITE patent in suit.

27. Defendant was organized in 1955 by Charles A. Koons to take over the importation and distribution in the United States of asbestos-cement pipe and couplings manufactured by Eternit S.p.A. in Genoa, Italy. When it entered the field, defendant offered only the SIMPLEX coupling. As early as 1957, it determined that, in order to compete with the plaintiff's RING-TITE coupling and

the Keasbey & Mattison FLUID-TITE coupling, the SIMPLEX coupling would have to be replaced. Defendant's managing agent in Florida complained to defendant's Vice President, Litynski (Pl. Ex. 19) that most people figured that it cost about 10c per foot extra when using SIMPLEX couplings as compared to RING-TITE or FLUID-TITE couplings.

28. In 1957, defendant's Italian supplier submitted literature and samples of a lubricated push-in type coupling known as SUPER-SIMPLEX as a substitute for the old SIMPLEX coupling (Pl. Ex. 3 and 4). The sales manager, Angie, of defendant's West Coast distributor wrote to defendant (Pl. Ex. 18) that the SUPER-SIMPLEX was well liked and that he thought it would be accepted alongside of the Johns-Manville and Keasbey & Mattison joints. This coupling was sold by defendant from the latter part of 1957 through a part of 1959. Its construction is shown in a brochure, Plaintiff's Exhibit 4, stipulated to be an accurate representation of the coupling. The SUPER-SIMPLEX seal did not have a shoulder on the pipe ends nor any external clamps or rings to effect end separation and sleeve centering. Instead, these results were supposed to be accomplished by the manual manipulation by the operator attempting to register the ends of the sleeve with scribe marks on the pipes. No charge of infringement was directed by plaintiff against the SUPER-SIMPLEX.

29. The testimony of all of the pipe line contractors who appeared at the trial and whose depositions were taken establishes that the absence of the shoulders on the pipe ends and the inability to provide sleeve centering and end separation made the SUPER-SIMPLEX coupling unsatisfactory. Many of the contractors stated that they would not buy any more of the SUPER-SIMPLEX couplings and most of them stated that they had so advised Vinmont, defendant's managing agent in Florida.

30. The evidence establishes the unsatisfactory character of the SUPER-SIMPLEX coupling, and the difficulties, problems and troubles encountered in its use, as well as the efforts made by defendant's officers and its West Coast distributor to have the Italian manufacturer furnish an improved coupling which would avoid the difficulties of the SUPER-SIMPLEX and would provide the automatic features of plaintiff's coupling. Samples of the accused coupling, known as the SS AUTOMATIC SEAL, were received late in December, 1958. The correspondence between Angie, sales manager of the West Coast distributor and defendant, and, between defendant's officers, Litynski and Winter, and the Italian supplier, in evidence (Pl. Ex. 27, 29, 31, 32, 38, 39-56 and 89) demonstrates frantic efforts to have the Italian manufacturer supply exclusively the new S.S. AUTOMATIC SEAL and to secure Underwriters' approval thereof. Shipments started on a large scale in June or July, 1959, and substantially all asbestos-cement pipe imported by defendant since then has been of the accused construction.

31. Defendant urged its supplier, Eternit S.p.A., Genoa to duplicate the automatic features of Johns-Manville's RING-TITE coupling and notified its customers, when the S.S. AUTOMATIC SEAL was available, that the new pipe and couplings avoided the difficulties previously encountered with SUPER-SIMPLEX and were equal to RING-TITE (Pl. Ex. 57-69).

32. The Defendant's accused coupling, identified as the "SS AUTOMATIC SEAL", is stipulated to be substantially correctly illustrated in a brochure in evidence as Plaintiff's Exhibit 2 (Pretrial Stipulation). The similarity between defendant's S.S. AUTOMATIC SEAL and plaintiff's patented coupling is apparent from a comparison of this brochure with Figure 4 of the patent in suit, and particularly by a comparison of the enlarged drawings in evidence as Plaintiff's Exhibits 129 and 142. The only

structural distinctions which can be found are in the specific cross-sectional shapes of the grooves in the coupling sleeves and the rubber rings seated therein, but these differences are of no importance, as claims 1 and 2 of the patent are not limited to such details.

33. Claims 1 and 2 of the patent in suit may be applied literally to the defendant's accused structure, as demonstrated by plaintiff's witness, Trice (Tr. 155-164) and by Plaintiff's Exhibit 145, a reproduction of Plaintiff's Exhibit 2 having numerals and legends applied thereto corresponding to the numerals on the patent drawings and the claim limitations.

34. There is nothing in the file wrapper of the patent in suit requiring a more limited interpretation of claims 1 and 2 of the patent than is apparent from their plain terms. There is nothing showing an intention by the Solicitor or the Examiner to limit claims 1 and 2 to a particular shape of sealing ring or groove, as claim 3 of the patent is limited.

35. In this case, the defendant's S. S. AUTOMATIC SEAL literally infringes claims 1 and 2 of the patent. Resort to the doctrine of equivalents is, therefore, unnecessary. As stated by the Supreme Court in *Graver Tank Co.* v. *Linde Air Products Co.*, 339 U.S. 605, 607, "If accused matter falls clearly within the claim, infringement is made out and that is the end of it."

36. In any event, defendant's device is an equivalent of the patented device, as it performs substantially the same functions, in substantially the same way, to obtain the same results. A comparison of the objects and functions of the invention of the patent in suit (Tr. 145, 146; Pl. Ex. 1, col. 2, ls. 18-42) with the written matter describing defendant's SS AUTOMATIC SEAL in Plaintiff's Exhibit 2 establishes that the same objects and functions are performed in both, by the same means, with the same

results. Defendant's brochure (Pl. Ex. 2) emphasizes all of the advantages first provided by plaintiff's patented construction. Defendant's witnesses did not dispute this conclusion and did not contend that the advantages of the RING-TITE construction were not present in the SS AUTOMATIC SEAL.

37. Defendant's contentions with respect to non-infringement are untenable. Its expert referred to only a few points upon which he disagreed with plaintiff's application of the claims to defendant's structure. Defendant denied that its resilient readily deformable gasket in the groove in its sleeve had greater initial radial thickness than the distance between the outer wall of the groove and the radially outer portion of the pipe end, and denied that the gasket was engaged between these surfaces "under relatively light radial compressive force in assembled relation and is at least slightly flattened in a radial direction." The testimony of defendant's witness on these points was inconsistent and unconvincing. After weighing the evidence, the Court finds that these two limitations are satisfied by defendant's structure.

38. Defendant also contends that the annular groove, which is admittedly formed generally radially outwardly from the inner circumference of the sleeve, does not have "a radially outer wall" and "generally radially extending axial end walls." Defendant admits that the groove has one such end wall, but denies the presence of two. The testimony of defendant's expert witness was not convincing, and the Court finds that the upper portion of the sloping surface indicated at 10 in Exhibit 145 is "a radially outer wall", and that the lower or end portion indicated at 16 is a "generally radially extending" end wall within the meaning of the claim, and that these surfaces function in the same way as the groove walls 10 and 16 in the Heisler patent.

39. Defendant refers to a claim limitation with respect to the groove being of greater width between its end walls than the thickness of the gasket in that direction to provide space for limited axial deformation of the gasket in opposite directions under fluid pressure in opposite directions. The Court finds that such a space is provided on both sides of defendant's gasket between the gasket material and the end walls and that these spaces are clearly shown in Plaintiff's Exhibit 145. The testimony of defendant's expert Bradt to the contrary is not convincing. He admitted on cross-examination that a space was provided in which the gasket, under extreme pressure, could deform (Tr. 399).

40. The final contention of defendant is that, since its groove does not have an outer end wall, the shoulder on the pipe does not lie at least in part radially opposite the outer end wall. Since the premise is false, the conclusion falls. As shown in Plaintiff's Exhibit 145, the shoulder 32 on the pipe is radially opposite the portion 16 of the sloping surface, which the Court finds is an end wall of the groove.

41. The forked sealing ring of the Turner patent 2,294,142, the circular section ring of the Heisler patent, and the generally triangular, V-shaped ring of the defendant's SS AUTOMATIC SEAL are all squeeze type, pressure assisted, interference seals, and all behave in a similar manner when fluid pressure is applied to a seal joint (Pl. Ex. 149, p. 91; Pl. Ex. 150, pp. 68, 69).

42. Defendant's sealing ring is not a true "V ring" as that term is used in the dynamic seal art because the outer surfaces of the lips and the solid portion of the heel are in surface contact with the surfaces to be sealed, the rings are installed singly, and at least the heel or solid portion of the ring is compressed.

43. Claim 3 of the patent in suit, which is not charged to be infringed, is limited to the specific cross-sectional

shape of the groove in the sleeve, as shown in the patent, and to a readily deformable gasket having a substantially circular cross-sectional shape in relaxed condition. Claims 1 and 2 are not so limited. Defendant attempts to read these limitations into claims 1 and 2. These broader claims will not be construed to contain limitations expressed in the more narrow claims. *Cameron Iron Works* v. *Stekoll*, CA 5, 1957, 242 F.2d 17, 21; *Bryan* v. *Richardson*, CA 5, 1958, 254 F.2d 191, 196; *Hemphill Company* v. *Holeproof Hosiery Company*, D.C. N.D. Ga. 1956, 143 F. Supp. 727, 731.

44. Defendant has failed to present evidence which would sustain a finding of non-infringement of claims 1 and 2 of the patent in suit or of non-equivalency between defendant's coupling and plaintiff's patented coupling.

45. Since March 20, 1956, the date of the grant of the Heisler patent in suit, plaintiff has applied to the pipe couplings made under the patent, the number of the patent, namely Pat. 2,738,992. Plaintiff has complied with the requirements of 35 U.S.C. Section 287, and has given notice to the public as specified therein.

46. Although defendant's president, in answer to interrogatories (Pl. Ex. 17, Int. 13) and in his testimony at the trial (Tr. 297) claimed he did not have knowledge of plaintiff's patent when the accused SS AUTOMATIC SEAL was sold in the United States, defendant was completely informed as to plaintiff's coupling and its construction and functional advantages. Defendant's counsel admitted (Tr. 70) that defendant's knowledge was more a knowledge of the coupling than of the patent on the coupling, but no explanation was given by defendant's president or other witnesses as to their failure to inform themselves about the plaintiff's patent. Although there is a disagreement between the testimony of plaintiff's Vice President, Orth, and defendant's President, Koons, as to the date when defendant was first given notice of the

charge of infringement, the Court finds that defendant either had actual notice of the patent or could readily have secured complete information with respect thereto when it first introduced the accused construction in 1959.

47. The correspondence in evidence between defendant and its Italian supplier and between defendant's managing agent in Florida and his customers establishes that defendant appreciated the novel and important features of plaintiff's RING-TITE coupling which made it commercially advantageous, and that defendant deliberately prevailed upon its supplier to include the same features in its coupling to meet the competition, and so advised its customers when it had done so (Pl. Ex. 38, 57-69).

Conclusions of Law

1. This Court has jurisdiction over the parties and the subject matter of this action.

2. Plaintiff is the owner of the entire right, title, and interest in and to the Heisler patent in suit, No. 2,738,992, and has been such owner continuously since the date of the grant, March 20, 1956.

3. The patent is presumed to be valid and the burden of establishing invalidity rests upon defendant (35 U.S.C. 282), and any reasonable doubt will be resolved against him (35 U.S.C. 282, *Cameron Iron Works* v. *Stekoll*, CA 5, 1957, 242 F.2d 17, 20, *Adams* v. *Columbus Manufacturing Co.*, D.C. N.D. Ga. 1960, 180 F. Supp. 921, 930).

4. The statutory presumption of validity is not overcome where the most pertinent patents relied upon by defendant to show lack of invention are no more pertinent than those considered by the Patent Office during the prosecution of the application on which the patent in suit issued. (*Otto* v. *Koppers*, CA 4, 1957, 246 F.2d 789, 800, 801; *Southern States Equipment Corporation* v. *USCO Power Equipment Corp.*, CA 5 1953, 209 F.2d, 111, 118).

5. The commercial success of the coupling made and sold by plaintiff under the Heisler patent in suit, its acceptance by the trade, and its effect in supplanting prior couplings, further strengthen the statutory presumption of validity of the patent.

6. The defendant has not sustained the burden of proof necessary to overturn the presumption of validity attaching to the patent from its grant or the administrative determination of patentability made by the Patent Office in granting the patent.

7. The combination of the Heisler patent is a true and patentable combination.

8. A new combination of old elements producing new, useful, and unexpected results is patentable under the Patent Laws of the United States.

9. A new combination of old or previously known elements which are brought together for the first time in a manner which would not be obvious to a person having ordinary skill in the art and which cooperate to produce a new and useful improvement over all previously known combinations, is patentable.

10. The invention of the Heisler patent in suit is patentable since it is not anticipated by the prior art and the subject matter as a whole would not have been obvious to a person having ordinary skill in the art at the time the invention was made.

11. The citation of a large number of prior art patents by defendant emphasizes the long search for the patented construction and demonstrates the unobviousness of the invention to one having ordinary skill in the art.

12. The patent in suit, No. 2,738,992, as to claims 1 and 2, the only claims in suit, is good and valid in law.

13. A broad claim in a patent will not be construed to contain limitations expressed in more narrow claims, since each claim is in theory a separate patent and no two claims should be so construed as to make them identical (*Cameron Iron Works* v. *Stekoll*, CA 5, 1957, 242 F.2d 17, 21).

14. Claims 1 and 2 of the patent in suit have been infringed by the defendant by its sale of asbestos-cement pipe and couplings designated SS AUTOMATIC SEAL.

15. Plaintiff is entitled to an injunction restraining defendant from infringement of claims 1 and 2 of the Heisler patent.

16. In accordance with the provisions of Title 35 United States Code, Section 284, plaintiff is entitled to an award of damages adequate to compensate for the infringement, in no event less than a reasonable royalty for the use made of the invention by the defendant, together with interest and costs as fixed by the Court. The cause will be referred to a Master to take an account and to report to the Court the damages sustained by plaintiff, and the Court will assess them.

17. Plaintiff shall recover its taxable costs as fixed by the Court, with interest upon the amount of damages from the charge of infringement (35 U.S.C. 284).

EMETT C. CHOATE
U. S. District Judge

Dated at Miami, Florida
This 9th day of April, 1962.

IN THE UNITED STATES DISTRICT COURT FOR THE
SOUTHERN DISTRICT OF FLORIDA
MIAMI DIVISION

No. 9979-M-Civil-EC

JOHNS-MANVILLE CORPORATION, A Corporation, *Plaintiff*,

v.

ITALIT, INC., A Corporation, *Defendant*.

Interlocutory Judgment

This cause having come on for consideration upon the pleadings, the pre-trial stipulation of the parties, the evidence presented at the trial, and the briefs of the parties, the Court being advised in the premises, and having filed its findings of fact and conclusions of law herein, it is hereby,

ORDERED, ADJUDGED, AND DECREED THAT:

1. The complaint for patent infringement is sustained.

2. Claims 1 and 2 of the Heisler patent in suit No. 2,738,992 are valid.

3. Claims 1 and 2 of the Heisler patent in suit No. 2,738,992 have been infringed by the defendant by its sale of asbestos-cement pipe and couplings designated SS AUTOMATIC SEAL.

4. Plaintiff is entitled to an injunction restraining the defendant from infringement of claims 1 and 2 of the Heisler patent in suit, No. 2,738,992.

5. This cause will be referred to Leland Hyzer, Esquire, as a Master to take an account and to report to the Court the damages sustained by plaintiff under the provisions of Title 35 United States Code, Section 284, and in order to

enable the Court to assess the damages, the Master is instructed to report the value of sales of all asbestos-cement pipe couplings sold in the United States by defendant of the type known as SS AUTOMATIC SEAL, as well as the number of lineal feet of each size and type of such pipe sold, and make findings as to what would constitute a reasonable royalty to plaintiff for the use of the infringing joints had they been licensed, and offer such findings as his recommendations.

6. Plaintiff is entitled to its costs and disbursements to be taxed and included and made a part of the final judgment in this cause.

EMETT C. CHOATE
U. S District Judge

Dated: April 9th, 1962
at Miami, Florida

APPENDIX B

IN THE

United States Court of Appeals

FOR THE FIFTH CIRCUIT

No. 19684

ITALIT, INC., *Appellant*,

VERSUS

JOHNS-MANVILLE CORPORATION, *Appellee*.

(April 16, 1964.)

Appeal from the United States District Court for the Southern District of Florida.

Before RIVES and CAMERON,[1] Circuit Judges, and HUNTER, JR., District Judge.

RIVES, Circuit Judge: This appeal is from an interlocutory judgment finding Claims 1 and 2 of Patent

[1] Circuit Judge Ben F. Cameron participated in the hearing of the case, but not in its decision. His death occurred on April 3, 1964.

No. 2,738,992[2] valid and infringed. The district court

[2]1. A pipe coupling for confining a fluid therein comprising, an inner pipe section having an end portion of generally cylindrical outer circumference but comprising two annular portions of different *substantially constant* outside diameters joined by a shoulder extending generally radially outwardly at a relatively steep angle to the axis of said inner pipe section, an outer pipe section having a generally cylindrical inner circumference defining an opening receiving said end portion of said inner pipe section, the annular portion of said inner pipe section end having the smaller outside diameter being located the closer axially to the axially inner extremity of the inner pipe section, the maximum outside diameter of said end portion being somewhat smaller than the diameter of said opening to provide clearance for axial movement and limited canting of the pipe sections relative each other, said outer pipe section having the annular groove formed generally radially outwardly from its inner circumstance and having a radially outer wall radially opposite at least a part of said annular portion of smaller outside diameter, and a resilient readily deformable gasket in said groove having a greater initial radial thickness than the distance between said radially outer wall of the groove and said radially opposite portion of the outer circumference of said inner pipe section end portion and being engaged therebetween under relatively light radial compressive force in assembled relation and at least slightly flattened in a radial direction, said groove having *generally radially extending* axial end walls and a somewhat greater width axially of the outer pipe section and between said end walls than the thickness of the gasket in that direction in its initially flattened state to provide space for limited axial deformation of the gasket material toward and against either one of the axial end walls of the groove and away from the respective other end wall in response to a fluid pressure differential resulting in a greater effective fluid pressure on that side of the gasket lying toward said respective other end wall of the groove, said shoulder being spaced a desired, predetermined distance from said inner extremity of the inner pipe section, said predetermined distance being such that said shoulder positively orients said inner pipe section in a desired predetermined position axially with respect to said outer pipe section when said pipe sections and gasket are brought together in the aforesaid relationship in assembly of the coupling with said shoulder and the one end wall of said groove axially opposite said shoulder both in contact with said gasket, *said shoulder lying at least in part radially opposite the other one of said end walls of the groove in said assembled relationship.*" (Emphasis added for reason expressed in text to footnote 8, *infra*.)

[2]2. A pipe coupling as defined in claim 1, in which said outer pipe section is in the form of a sleeve, and comprising

entered findings of fact and conclusions of law[3] which, except for some minor changes, had been prepared by counsel for Johns-Manville.[4]

The patent is for a push-in pipe coupling for use principally with asbestos-cement pipe similar to the coupling for use with cast iron pipe held valid in *U.S. Pipe & Foundry Co.* v. *James B. Clow & Sons, Inc.*, N.D. Ala. 1962, 205 F. Supp. 140. That decision was reversed for determination of the issue as to who was the first inventor, with the following ruling as to patentability:

> "The contention that the patent is devoid of any inventive contribution in view of the prior art, and that it was not infringed are both without merit, as is the argument that the claims failed to meet the statutory requirement of

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further a second inner pipe section having an end portion formed similarly to the first-mentioned inner pipe section end portion and similarly received in, and related to, the opposite end of said sleeve, and a second gasket similarly received therebetween, at least said inner pipe sections comprising hardened, compressed, fibro-cement material, said inner pipe section end portions and said sleeve being disposed in generally coaxial relationship, the spacing of the annular wall portions on the inner pipe sections from their respective axially inner extremities being such that said extremities are spaced at a desired predetermined distance axially from each other with the gaskets and associated wall portions at the opposite ends of the sleeve and on the inner pipe section end portions respectively in contact as aforesaid, and also with the shoulder on each inner pipe section lying at least in part radially opposite the respective said other one of said end walls of the associated groove."

3 Reported as Johns Manville Corporation v. Baltz, Inc., S.D. Fla. 1962, 209 F.Supp. 798.

4 For the significance to be attached to that circumstance, see Kinyon Wood Corporation v. Humble Oil & Refining Co., 5 Cir. 1958, 259 F.2d 398, 401, and the full discussion in Louis Dreyfus & Cie. v. Panama Canal Co., 5 Cir. 1962, 298 F.2d 733, 737-739.

definiteness. Also, the claim of file wrapper estoppel was not made out. These matters were carefully considered by the District Court and the findings and conclusions in regard to them find adequate support in the record. To this extent, and except as stated, the judgment is affirmed."

The district court in the present case described what it referred to as "the heart of the invention" in its finding numbered 11 (209 F. Supp. 800, 801):

> "The coupling made and sold by plaintiff in accordance with the patent in suit was a lubricated 'push-in' coupling and was the first one of this type ever used in the asbestos-cement field. The patented coupling consists of an asbestos-cement sleeve having grooves in its inner surface in which rubber sealing rings are seated and arranged to be relatively lightly compressed as the lubricated pipe ends are pushed into the sleeve. The machined ends of the pipes are each provided with a circumferential *shoulder* at a predetermined distance from the end, to engage the rubber rings and to limit the movement of the pipe into the sleeve (Tr. 147, 148). The shoulder on the pipe *in combination* with the sealing ring in the groove in the sleeve is the heart of the invention, accomplishes new and useful results, makes possible an entirely new mode of opera-

tion, and the use of the shoulder in combination produces advantages which were not up to then foreseen."

The issuance of the patent carries with it a presumption of validity.[5] Italit's attack on the validity of Claims 1 and 2 (n. 1, *supra*) is based upon obviousness or lack of invention.[6] On the issue of validity the district court made extensive findings of fact culminating in finding No. 20:

> "20. Although there is no single new element in the plaintiff's patent that constitutes a patentable invention in and of itself, the combination of old elements, or previously known elements, or elements of prior art, particularly as respects the shoulder on the pipe, has produced a new and useful and patentable improvement over all previously known couplings. The elements of claims 1 and 2 of the patent in suit constitute a true patentable combination, and not a mere aggregation of old elements. All of the elements cooperate with each other to perform new and useful results in an improved manner and were combined through the exercise of invention. The new combination of old elements brought together for the first time by the inventor, Heisler, would not have been and was not obvious to one having ordinary skill in the art at the time the invention was made." (209 F. Supp. 802.)

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[5] 35 U.S.C.A. § 282.

[6] See 35 U.S.C.A. § 103.

This finding of fact cannot be set aside as clearly erroneous, and it warrants the conclusion that the statutory requirements for patentability have been met.[7]

Claims 1 and 2 are charged to be infringed. One of these claims applies more particularly to a sleeve type while the other applies to a bell and spigot type coupling.[8] Claim 2 is dependent upon Claim 1 and cannot be infringed if Claim 1 is not infringed. The district court was unquestionably correct in that part of its finding No. 20, heretofore quoted, to the effect that each of the elements recited in Claims 1 and 2 were old in the art.

The application for the patent as originally filed contained fourteen claims, all of which were rejected by the examiner upon various grounds, his communication concluding:

> "Claims 1 through 14 are further rejected on the ground of undue multiplicity. In view of the relative simplicity of applicant's device and the advanced state of the art as illustrated by the cited references supra, it is believed that applicant's invention if any, may be adequately claimed in not more than two claims."

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7 *See* Graver Mfg. Co. v. Linde Co., 1949, 336 U.S. 271, 274, 275.

8 The patent contains three claims. Claim 3 specifically recites a gasket "having a substantially circular cross-sectional shape in relaxed condition" and is not in this suit.

In an amendment the applicant cancelled ten of the fourteen pending claims and added six new claims, stating that:

> "The reference cited and the grounds of rejection applied against the claims originally in this application have been very carefully studied, and the claim structure has been altered by the instant amendment in a manner considered to distinguish patentably from the art and to overcome the several grounds of rejection, including the rejection on the ground of undue multiplicity, for the reasons pointed out below."

Again all of the claims were rejected with the statement that, "This rejection is final." In response, the applicant cancelled all of the claims and added five new claims, three of which, after amendment, became the claims finally allowed. The applicant stated that the new claims "are considerably more specific," and further,

> "The claims also provide for clearance for deflection of the pipe sections within the coupling sleeve, and the gaskets involved are specified to be of the readily deformable type, such as used in 'O-ring' constructions, the gaskets being stated to be held under relatively light radially compressive forces so as to provide for easy assembly of the coupling."

The examiner responded that the most detailed claim, which was eventually allowed as Claim No. 3, not here in suit, "appears to be allowable," but rejected the other four claims. After appeal to the Board of Appeals, the applicant cancelled two of the claims and further amended the other two which were eventually allowed as Claims 1 and 2, stating:

> "While claims 23 and 24 are still considered allowable over the references in their unamended form, the instant amendment to these claims is proposed as more clearly delineating the novelty in the combination from the teaching of the references, as discussed hereinafter in detail."

The language added to Claim 23, which became Claim 1 as finally allowed, is that which we have emphasized in n. 1, *supra*. The detailed discussion by applicant's attorney reads in part as follows:

> "The proposed amendment to line 4 of claim 23 specifies the substantially constant nature of the two different outside diameters of the annular portions joined by the shoulder on the inner pipe section. The proposed amendment to line 26 of claim 23 *leaves no room for any possible doubt as to the direction in which the axial end walls of the groove extend*. The amendments to lines 41 and 43 of claim 23 are considered especially significant in locating the shoulder at least in part radially opposite

the same end wall of the groove in the assembled relationship as brought out in allowed claim 25, the difference being that the exact shape of that end wall is not specified in claim 23. This relative location of the said end wall and the shoulder is believed to be a critical feature of the combination, since the particular end wall involved must be so located in order to cooperate with the shoulder in preventing gasket blow-out under positive line-pressure off-conditions. Claim 24, as dependent from claim 23, contains all the novel features thereof, together with the additional novel features recited therein, and should clearly be allowable with claim 23." (Emphasis added.)

While Claim 3 of the patent specifically calls for the gasket to be "circular," Claims 1 and 2 do not contain this express limitation. However, the gaskets defined in Claims 1 and 2, because of the prosecution of the application and because of the relationship set out in the claims of the axial width of the groove with respect to that of the gasket, can only be limited to "O-ring" type gaskets. This does not mean that the gaskets must be circular or must have an "O" shape, but only that they be gaskets which seal under the "O-ring" principle of sealing. "O-ring" type gaskets may take many different shapes provided that the gasket is readily deformable. For example, an "O-ring" type gasket may be square shaped, delta shaped or X shaped.

"V-ring" seals, which were distinguished over during the prosecution of the application, seal on an entirely different principle than an "O-ring" gasket. They do not depend upon being deformed or squeezed into a space between pipe sections in order to make a seal, but rather depend upon fluid pressure to force the lips of the "V" apart against the parts to be sealed so that the greater the hydraulic pressure, the greater will be the force against the lips pushing them against the parts to be sealed.

In *Keystone Co.* v. *Northwest Engineering Corporation*, 1935, 294 U.S. 42, 48, the Supreme Court said:

> "We do not attribute the force of an estoppel to what was said by the claimant in seeking to avoid the prior art cited against his broad claims, but we do apply the principle that where such broad claims are denied and a narrower substituted, the patentee is estopped to read the granted claim as the equivalent of those which were rejected."

See also, *Southern States Equipment Corporation* v. *USCO Power Equipment Corporation*, 5 Cir. 1953, 209 F. 2d 111, 121.

Claims 1 and 2 cannot be given a construction broad enough to encompass Italit's S-S automatic coupling, which utilizes a "V-ring" gasket, that does not move axially in its V-shaped groove to effect any seal.

Italit's coupling does not have the elements specifically defined in Claims 1 and 2. It does not have a groove in the outer pipe section which has "axial end walls" and "a radially outer wall radially opposite at least a part of said annular portion of smaller outside diameter" of the inner pipe section as required in Claim. Instead of the three walls called for, it has two walls, one being a slanted wall (at an acute angle—not radially extending) and the other being a radially extending end wall which join to form a triangular shaped groove. Italit's groove is the type of groove adopted to fit the "V-ring" lip-seal type of gasket Italit uses.

Italit's coupling does not have the *two* "generally radially extending axial end walls" called for in the claims. It does have one such wall. It would be straining things to say that its slanted wall was a "generally radially extending wall portion."

Italit's coupling groove does not have "a somewhat greater width axially of the outer pipe section and between said end walls than the thickness of the gasket in that direction in its initially flattened state to provide space for limited axial deformation of the gasket material towards and against *either one* of the axial end *walls* of the groove and away from the respective *other* end wall . . ." (Emphasis added.) as called for in the claims. The axial width of the groove in Italit's coupling is the same axial width as is the "V-ring" lip-seal gasket which fits into the groove.

Italit's coupling does not have "said shoulder lying at least in part radially opposite the other one of said end walls of the groove in said assembled relationship." The shoulder lies radially opposite a slanted wall of the groove and not any end wall which is "generally radially extending" as the end walls are defined in the claims. The only "radially extending" end wall is not "radially opposite" the shoulder on the pipe end.

Italits coupling does not have a gasket which is engaged between the radially outer wall of the groove and the outer circumfergnce of the inner pipe section, so that it is "slightly flattened in a radial direction" and so arranged in the groove that there may be "limited axial deformation of the gasket material toward and against either one of the [generally radially extending] axial end walls . . . ." The gasket utilized in Italit's seal is a "V-ring" lip-seal gasket operating on a principle different from the "O-ring" squeeze principle of sealing and does not require any axial deformation to make a seal.

The district court erred in finding that Claims 1 and 2 of the patent in suit have been infringed by the defendant, Italit. The judgment is therefore reversed and the cause remanded for further proceedings consistent with this opinion.

REVERSED AND REMANDED.

APPENDIX C

Comments on Incorrect Fact Statements of Court of Appeals

The last seven paragraphs of the court of appeals opinion (Exhibit B, pages 10-12) contain statements that respondent's gasket and groove do not have certain physical properties defined by quoted portions of the claims in suit. All of the limitations so quoted or paraphrased by the court of appeals were contained in original claims 2 and 3 of the application from which the patent in suit matured. Original claim 2 reads in part as follows (R. 685, 686):

> "... a resilient readily deformable gasket ... engaged by the radially outer wall of the groove and the radially opposite portion of the outer circumference of said pipe section end *under relatively light radial compressive force and at least slightly flattened radially*, said *groove having axial end walls* and a *sufficiently greater width axially of the outer pipe section and between said end walls than the thickness of the gasket in that direction in its initially flattened state* to provide space for limited axial deformation of the gasket material *toward and against either one of the axial end walls* of the groove and away from the respective other end wall in response to the fluid pressure differential ...."

Original claim 3 (R. 686,687) required that the outer end wall of the groove extend "radially outwardly".

The Patent Office held (R. 695) that the language quoted above could be literally read upon the gasket and groove of Kenyon U.S. Patent No. 865,498 (R. 760), and upon Nathan U.S. Patent No. 2,202,235 (R. 777), each of which shows a gasket and groove substantially identical with respondent's device. Petitioner never contended that the quoted language would not read on triangular-shaped gaskets and grooves arranged as in respondent's device. If the quoted language in original claims 2 and 3 reads on a

triangular gasket and groove, as held by the Patent Office, the same language in the claims of the patent must read on respondent's triangular gasket and groove.

Expert witness Trice, with fourteen years direct experience in research activities relating to pipe joints of the type in suit, testified and demonstrated (R. 190-195) that the language quoted above will literally read on respondent's device and this testimony was not shaken on cross examination. Respondent's expert witness Bradt, with no direct experience with pipe joints of the type in suit, testified on direct examination (R. 309-315) that the quoted language could not literally be read on respondent's device, but this testimony was severely shaken and partially modified on cross examination (R. 351-359). For example, he testified (R. 312) on direct examination that respondent's ring in the assembled joint was not squeezed or flattened. On cross examination (R. 357), he was requested to measure the degree of compression of respondent's gasket from the relaxed condition shown in Figure 6 of Defendant's Exhibit 28 (R. 892) to the assembled condition shown in Figure 7 of the same exhibit, and was forced to admit that the ring was squeezed or flattened to the extent of eighteen per cent in the solid portion.

The court of appeals statement that respondent's gasket does not move in the groove in response to fluid pressure is contrary to Trice's testimony (R. 189, 193), and not supported by Bradt's testimony (R. 359) with respect to Plaintiff's Exhibit 2 (R. 413), this being a copy of respondent's brochure which illustrates such movement and was stipulated by respondent to be accurate.

There was expert testimony (R. 195-198) in amplification of documentary exhibits to the effect that the gasket and groove in respondent's device function in every respect in accordance with the so-called O-ring principle. The testimony of petitioner's expert Trice on this point was forthright and unshaken. The testimony of respondent's

expert Bradt on this point was inconsistent (R. 300-308) and severely shaken (R. 347-359).

There was expert testimony (R. 197,198) that respondent's gasket and groove performs substantially the same functions in substantially the same way to obtain the same results as the gasket and groove of the joint defined by the claims in suit. Respondent offered no testimony to the contrary, and the trial court so found (Appendix A, Finding 37).

The pertinent findings of subsidiary fact which the court of appeals disregarded (Appendix A, Findings 33 through 42) are based upon and literally refer to the testimony, the documentary evidence and the credibility of the expert witnesses. These findings are clearly supported by the evidence, and the court of appeals' substituted judgment is manifestly contrary to the weight of the evidence.

APPENDIX D

February 27, 1962

Honorable Emett C. Choate
Judge, United States District Court
Federal Building
Miami, Florida

Re: Johns-Manville Corporation v. *Italit, Inc.*

Dear Judge:

Pursuant to the request of your Law Clerk, Mr. Al Schwitalla, a few days ago that Findings of Fact and Conclusions of Law be prepared in this case, Mr. C. Willard Hayes and his associates have prepared and sent to me suggested Findings of Fact and Conclusions of Law pursuant to Rule 52, two copies of which are enclosed for your consideration. Should you desire to discuss any detail of these proposed findings with counsel, Mr. Hayes will be glad to come down here for that purpose.

Mr. Schwitalla indicated that you were ruling with the plaintiff. Therefore, Mr. Hayes has prepared a suggested form of Interlocutory Judgment in accordance with 28 U.S.C. 1292(4) and 35 U.S.C. 284. Two copies of that are also enclosed.

We are sending copies of these papers to opposing counsel, in accordance with the certificates of service attached to the papers.

Respectfully yours,

HERBERT S. SAWYER /s/
For the Firm

11/vc
Enclosures

Copies to:

Dixon, DeJarnette, Bradford Williams, McKay & Kimbrell
Dade Federal Building
Miami, Florida

Pennie, Edmonds, Morton, Barrows & Taylor
247 Park Avenue
New York, New York

Cushman, Darby & Cushman
American Security Building
730 Fifteenth Street, N. W.
Washington 5, D. C.

Attention: C. Willard Hayes, Esquire
John A. McKinney, Esquire
J-M Research Center
Manville, N. J.

APPENDIX E

April 9, 1962

Mr. Al Schwitalla
Judge Choate's Chambers
Federal Building
Miami, Florida

Re: Johns-Manville v. Italit, Inc.

Dear Al:

I am handing you two copies of the Findings of Fact and Conclusions of Law and two copies of the Interlocutory Judgment.

We are returning the original copy of Findings of Fact and Conclusions of Law and the original copy of Interlocutory Judgment showing the changes, corrections, additions and deletions made by Judge Choate.

In addition, you will please find enclosed four copies of the Findings of Fact and Conclusions of Law and of the Interlocutory Judgment in four separate envelopes addressed to the various attorneys of record in the case, with sufficient stamps thereon, for your convenience in mailing the same after the copies now contained in said envelopes are conformed.

If you will be so kind as to call me when the Judge has signed these papers, I shall very much appreciate it.

Thanking you for your courtesy in the matter, I am

Sincerely yours,

HERBERT S. SAWYER s/
For the Firm

cc: C. Willard Hayes, Esq.
Cushman, Darby & Cushman
American Security Bldg.
730 Fifteenth St., N. W.
Washington 5, D. C.

9/vc
Enclosures